

ABSTRACT OF THE DISCLOSURE

1 Traffic handling load on network servers is moderated by attenuating POP checks
2 at proxy servers located across the network. Attenuation of POP checks is accomplished
3 by intercepting each POP check packet at a proxy server that is nominally local to where
4 the user is located. The proxy server permits a given user's initial POP check to proceed
5 on through the network to the mail server. Thereafter, though, the proxy server only
6 permits that user's received POP checks to proceed onward according to a predetermined
7 algorithm, e.g., at intervals of no less than fifteen minutes. Overly frequent POP checks
8 by a user are responded to by the proxy server (rather than the mail server itself) with a
9 response indicating that the user that he has no mail (despite not knowing deterministically
10 whether that is a true statement). Additionally the proxy server may buffer and delay the
11 POP transactions to effectively allow only a predetermined rate of POP checks.
12 Bandwidth loading on the network is managed by pushing e-mail message traffic out to
13 the edges of the network at times when bandwidth demand is low. To accomplish this, a
14 user's e-mail is cached at the proxy server nearest to his presumed location. This
15 decentralizes the e-mail storage away from the mail server and spreads it out over the
16 network at the various proxy servers. This cache action is preferably done when there is a
17 lull in network traffic (e.g., at night). This has the effect of decentralizing the bandwidth
18 demand on the overall network since the e-mail messages have a shorter distance to travel
19 when retrieved by the user from the cache location at the proxy server.